

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)  
(PCT Article 36 and Rule 70)

REC'D 15 NOV 2005

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Applicant's or agent's file reference 501770 KXR/sdr	<b>FOR FURTHER ACTION</b>	See Form PCT/IPEA/416
International application No. <b>PCT/NZ2004/000142</b>	International filing date (day/month/year) 5 July 2004	Priority date (day/month/year) 4 July 2003
International Patent Classification (IPC) or national classification and IPC  Int. Cl. <sup>7</sup> A23C 21/06, A23C 9/137, A23C 19/00, A23C 20/00, A23C 23/00, A23J 3/08		
Applicant  FONTERRA CO-OPERATIVE GROUP LIMITED et al		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 3 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
  - a. ☐ (sent to the applicant and to the International Bureau) a total of sheets, as follows:
    - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or table related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

Date of submission of the demand 4 May 2005	Date of completion of the report 25 October 2005	8 NOV 2005
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  <b>GARETH COOK</b> Telephone No. (02) 6283 2541	

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/NZ2004/000142

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of:
    - ☐ international search (under Rules 12.3 and 23.1 (b))
    - ☐ publication of the international application (under Rule 12.4)
    - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
  - ☒ the international application as originally filed/furnished
  - ☐ the description:
    - pages as originally filed/furnished
    - pages\* received by this Authority on with the letter of
    - pages\* received by this Authority on with the letter of
  - ☐ the claims:
    - pages as originally filed/furnished
    - pages\* as amended (together with any statement) under Article 19
    - pages\* received by this Authority on with the letter of
    - pages\* received by this Authority on with the letter of
  - ☐ the drawings:
    - pages as originally filed/furnished
    - pages\* received by this Authority on with the letter of
    - pages\* received by this Authority on with the letter of
  - ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
  - ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to the sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to the sequence listing (*specify*):

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/NZ2004/000142

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims 9, 10, 12-15	YES
	Claims 1-8, 11, 16-21	NO
Inventive step (IS)	Claims 12-15	YES
	Claims 1-11, 16-21	NO
Industrial applicability (IA)	Claims 1-21	YES
	Claims	NO

## 2. Citations and explanations (Rule 70.7)

The following documents identified in the International Search Report have been considered for the purposes of this report:

D1 US 5 714 182  
D2 EP 162 498  
D3 US 4 519 945

Novelty (N) and Inventive Step (IS) claims 1 to 21

The independent claims are to a method of preparing a dairy product comprising casein and whey protein including the steps of: providing a material comprising casein and whey protein; adjusting the pH if required; subjecting the material to a cooking step; adjusting the pH of the cooked product; further processing/packaging. D2 discloses the claimed method in the examples. Submission by the Attorney have been that the methods of the citation refers to separation of curd and serum. However in the citation the terms curd and serum are not used in their normal meaning, but used to refer to the precipitate and liquid formed during the methods. The citation clearly describes the final product as containing whey (see for example the abstract) which is a clear indication that the whey proteins are not removed during the separation of curd and serum, and the specification also states that the precipitate and liquid obtained can be referred to as a curd and serum at page 1 lines 26 to 30. Further submissions have been made that the claimed methods do not include a separation step, however the claimed methods do not exclude a separation step either. Claims 1 to 8, 11 and 16 to 21 are not novel and lack an inventive step when compared with this document.

D1 discloses in the examples methods for producing a dairy product comprising casein and whey protein. The disclosed methods differ from the claims in that the cooked product does not have its pH adjusted (although in further processing the composition to which the product is added has its pH adjusted). The current application does not give a clear explanation as to why the step of adjusting the pH after cooking is necessary and submission by the Attorney has been that this is to enable a wide range of products to be formed. It would therefore appear to be an obvious step to add to the methods disclosed in the citation. If the pH needed to be adjusted before further processing of the cooked product, it would be obvious to the skilled addressee to do this. Claims 1 to 11 and 16 to 21 lack an inventive step when compared with this document.

D3 discloses a process for making a whey-casein precipitate which can be added to food. the steps of the process are the same as those claimed, but the document does not disclose the precipitate being used to texturise a food product or its use in a dairy product. The claims are novel and inventive when compared with this document.

Industrial Applicability (IA)

The claims are related to products capable of commercial application.